REMARKS

The Office Action dated October 26, 2006 had been read and carefully considered and the present amendment submitted in order to further point out distinctions between the present invention and the cited prior art.

It is respectfully requested that the present amendment be entered into this application after a final rejection on the basis that no new issues have been raised, that is, the amendments to the claims actually revert the claim language to prior language and basically the amendments are being presented in order to put the claim in better condition for appeal. Obviously no new search is necessary. Accordingly even if the Examiner does not consider the amendment to place the case in condition for allowance, it is still requested that the present amendment be entered for purposes of appeal

The same is true of the statements of Dr. de Haseth and Dr. Smolyarenko that are being submitted with the present amendment. Both of the individuals are renown experts in their fields and the present statements have simply been updated and modified with respect to the prior admitted statements to accurately reflect the newly amended claims being presented herewith and, as such, also raise no new issues.

In that Office Action, claims 1-20, 28, 30-33, 35-37 and were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, specifically, for reciting the substrate to be a "solid, non-porous sample supporting substrate" where it is contended by the Examiner that the specification does not teach the claimed "solid, non-porous sample supporting substrate". The same claims were also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Accordingly, Applicant has cancelled the term "solid, non-porous sample supporting

substrate" and replaced the term with the term "crystal" to clarify and expedite the review of the issues for appeal, however, it is submitted that a "crystal" is, by definition, a solid, non-porous material and that the prior language was well founded in the specification.

As to the prior art, claims 1-20, 28, 30-33, 35-37, 39-44 and 46-53 were rejected under 35 U.S. 103(a) as being unpatentable over Gagnon *et al*, U.S. Patent 5,764,355 in view of Eden *et al*, U.S. Patent 4,843,030, further in view of Applicant's admitted prior art (pages 3-8 of the original specification) or Izumi, U.S. Patent 4,932,780 together further in view of Marker et al, U.S. Patent 4,855,110. Claim 45 was rejected under 35 U.S. 103(a) as being unpatentable over Gagnon *et al*, U.S. Patent 5,764,355 in view of Eden *et al*, U.S. Patent 4,843,030, further in view of Applicant's admitted prior art (pages 3-8 of the original specification) or Izumi, U.S. Patent 4,932,780 together further in view of Marker, U.S. Patent 4,855,110.

THE PRIOR ART

Again, it is submitted that the Gagnon *et al* reference is simply not a viable principle reference against the present claims. If anything, Gagnon *et al* is evidence of a prior art sample holder that illustrates the need, now satisfied by the present invention, for the industry to have an inexpensive, sample holder for a spectrometer or filtometer that can be used and which does not interfere with the IR energy being passed through the samples.

In the Gagnon *et al* reference, there is a sample holder that relates to the use of a receiving means that is described as a screen as in U.S. Patent 5,453,252 or a microporous sheet as described in U.S. Patent 5,470,757 (column 2, lines 54-59). As to the former embodiment where the receiving means is a screen, the materials are suggested to include glass, quartz, metals, alloys as well as polymeric material such as nylons, polyethylenes, polystyrenes, fluoropolymers (e.g. polytetrafluoroethylene), polyamides, polyaramids, polybutadiene etc.

Those listed materials by Gagnon *et al*, i.e. glass, quartz or polymeric material are used only in the first embodiment, that is, the screen having a grid pattern similar to window screens. The second embodiment, the microporous sheet, makes no reference to being made of glass or

quartz and only appears to be constructed of polymeric materials. The problems with the interference to the relevant wavelengths with the use of polymeric materials has previously been explained and is discussed in detail in the present specification on page 3, beginning at line 16. The deficiencies of polymeric material is further explained in the attached declaration of Dr. James de Haseth submitted herewith, a renown expert in the field of spectroscopy. See paragraph 1c of the attached de Haseth Declaration, referring to polyethylene and polytetrafluoroethylene, "Both substrates obscure important parts of the spectrum and to collect a spectrum without interferences, spectra on both substrates have to be run and then merged together to obtain a good spectrum. This is by no means an easy task".

The Examiner has, in the Office Action dated May 11, 2006, page 3, stated that at column 5, lines 33+ of Gagnon, there is a teaching of "an aperture containing a second material where the sample is applied that transmits infrared energy". Again, as indicated, that portion of the Gagnon specification indicated the second infrared transmitting material to be "glass, quartz or polymeric materials". It is submitted, however, just to the contrary, "glass, quartz and polymeric materials" are <u>not</u> infrared transmitting materials. They all absorb infrared energy and there is <u>no</u> statement in Gagnon that these materials are infrared transmitting materials. In fact, in the attached statement of Dr. de Haseth, the 3M cards, made under the Gagnon patent, "obscure important parts of the spectrum" Paragraph 1c.

Indeed, in Gagnon et al, the only reference to an infrared transmitting material is <u>not</u> in respect of the sample substrate, which, as noted above, is a grid, but rather to a "protective cover that is transparent to IR light " (col. 5, line 2). This is certainly not a reference to the sample supporting substrate.

That section of the Gagnon specification cited by the Examiner is preceded by a lengthy description in which it is stated that the sample is received in a grid such as a screen and held in place by surface tension in the aperture. (Gagnon, column 5, line 16 *et seq*). It does not state that the receiving means inside of the aperture transmits infrared energy.

The use of a screen or mesh is discussed in Applicant's specification along with the disadvantages of that type of sample receiver on page 4, beginning at line 9. As there described, the use of microporous sheets or screens are functionaly different than crystal optical materials when used in spectroscopy since the microporous sheets absorb the energy from the spectrophotometer and create absorption peaks as shown in Applicant's Figure 1 with respect to polytetrafluroethylene and Figure 2 with respect to polyethylene. As discussed in Applicant's specification, PTFE has absorbance peaks in the 130 to 450 cm^{-1} range (page 12, line 17 *et seq*). Polyethylene has strong absorbancies at 2918.7 $cm.^{-1}$ and 2849.9 cm^{-1} (page 2, line 22 to page 3, line 2). These absorbance peaks are not desirable as they interfere with the analysis of the samples (page 13, lines 12-26). It is also noted in the specificaton that the crystal optics used in the prior art do not have such absorbance peaks when properly prepared. (page 13, lines 12-26). As also explained in Applicant's specification, particularly with reference to Figures 8, 9 and 10 illustrating the present invention, the cleaved crystal windows perform comparable to the prior art polished crystals (page 15, line 25 *et seq*) and they do not exhibit absorbance peaks of the type shown for the microporous sheets of the prior art sample cards using polyethylene and PTFE (referring again to Applicant's Figures 1 and 2). Note again, the attached de Haseth declaration, where he states, in referring to the absorbance peaks of polyethyline and polytetrafluroethylene materials, "These absorbance peaks are not desireable as they interfere with the analysis of the samples (page 13, lines 12-26)".

The presence of that interference is basicallly conceded in Truett, U. S. Patent 5,453,252, cited in Gagnon et al:

"FIG 2 depicts a card 5 containing a porous polyethylene or porous polytetrafluroethylene window 6 upon which a sample of liquid or solution of a solid or a paste can be placed. The card FIG. 2 is then placed in the cell slide of a FTIR spectrometer and a spectrum determined. <u>The problem with this device is that the spectrum of the porous paper is also determined in addition to that of the sample applied to the card window</u>. This complicates the interpretation of the IR specrum and renders information in four critical areas of the spectrum uncertain in the case of the polyethylene window and several valuable areas are also

useless when the polytetrafluroethylene paper is used." (Column 1, lines 43-54).(underlining added)

The Gagnon *et al* reference specifically refers to Truett as disclosing a screen suitable for the Gagnon *et al* sample holder and Applicant's Figure 7 illustrates the Janos device that is produced by use of the disclosure of the Truett patent. That the receiving means of Gagnon *et al* <u>must</u> be porous is well described and, indeed, the teaching of Gagnon *et al* is to encircle that porous area where the sample is to be placed with a nonporous perimeter, thereby making it clear that the Gagnon *et al* sample holder must have a porous receiving means. As further disclosed in Gagnon *et al*, the preferred material for the sample receiving means is a microporous polymer sheet. See paragraph 5 of the attached de Haseth statement, "While the polymer and screen cards previously discussed are porous and <u>must be porous</u>, a crystal processed in accordance with claim 1 language is not porous". (underlining added)

Truett describes the porosity in its only independent claim:

"1. An analytical specimen support for infrared microspectroscopy comprising a pair of opposed generally flat surfaaces composed of rigid material that is non-reactive to water, acidic substances and solvents and <u>having a plurality of unobstructed holes</u> in a screen disposed between said pair of opposed, generally flat surfaces, the cross-sectional area of each hole being suficient to retain liquid spanning said hole, <u>the liquid being held in said hole</u> by the surface tension of the liquid and said screen being fitted with a substantially flat plate of absorbent material disposed between said screen and one of said pair of opposed flat surfaces." (Emphasis added)

Applicant's substrate is not a porous screen for receiving and holding the sample to be analyzed nor, of course, is it a polymer. Applicant's substrate is comprised of a crystal produced by very specific steps defined in the claims and the <u>material</u> allows infrared light to pass therethrough without the infrared light transmitting sample supporting substrate or any other material within the aperture substantially absorbing infrared light within a substantial

portion of the infrared spectral range. Thus, Applicant's sample holder is dissimilar to the Gagnon *et al* holder where the grid or screen is intended to form a base for holding the sample such that the infrared light can pass through the sample located in the voids of the screen and not through the substrate itself. To the contrary, the substrate of the present invention does not have voids that allow the infrared light to pass through the substrate unimpeded so as to pass only through a sample residing in those voids. The substrate of the present invention is comprised of a crystal that is non-porous thereby requiring the infrared light to pass through the substrate which therefore cannot substantially absorb infrared light since otherwise the eventual analysis would be affected by the absorption of the infrared light by the substrate.

As clearly stated in the Gagnon reference, the screen is not similar to or comparable to the substrate described in the present application as set forth in claim 1 or any of the other independent claims. While various materials are disclosed as usable to make up the screen, it is important to note that the materials are not necessarily selected due to their transparency to infrared radiation. The materials are selected to make up the micromesh and it is the voids that are of importance since the voids hold the material to be analysed and thus the voids volume is suggest to be in the range of 50 to about 98 % so that the thin microporous material does not affect or interfere with the radiation passing therethrough. Thus, the material need not be transparent to the radiation; its effect is minimized by making the mesh very thin (when polyethylene, the thickness is suggested to be less than about 150 μm) and the void volume great so as to simply minimize the effect of the mesh material on the accuracy of the analysis.

It is believed that the grid pattern screen embodiment of Gagnon is being relied upon by the Examiner and not the polymeric sheet. Again, however, Applicant reiterates the basic difference between the grid type of screen of Gagnon *et al* and a crystal of the present invention produced by very specific steps. A "crystal" has previously been defined by Applicant by submitting various well recognized definitions thereof and which clearly distinguishes the present crystal over a screen having a grid pattern similar to a window screen that simply cannot be produced by cleaving, fly cutting, chipping milling or scaling. Note the definition submitted in the Remarks of the amendment mailed August 11, 2006 as follows: 'The Photonics Dictionary states its definition of a crystal as "A solid with a structure that exhibits a

basically symmetrical and geometric arrangement". Further, in dictionary .com, the initial definition of a crystal is "A homogenous solid formed by a repeating, three dimensional pattern of atoms, ions or molecules and having a fixed distance between constituent parts.' Note also, the attached statement of Dr. de Haseth, paragraph 5: "While the polymer and screen cards previously discussed are porous, and must be porous, a crystal processed in accordance with claim 1 language is not porous." Note also, the attached statement of Dr. Smolyarenko, paragraph 9, "It is well known in the field of crystal growth and optics that a crystal is a solid and that a crystal is not porous."

The present issues do not involve the mere selection of a material for an intended purpose. The present invention uses a crystal formed by certain well defined steps while Gagnon *et al* suggests the use of a screen similar to a "window screen". The material employed by Gagnon *et al* is not particularly relevant, as with Gagnon *et al*, the material to be analyzed is held in the openings or voids formed by the screen and it is not necessary that the IR energy pass through the screen material at all.

The IR energy of Gagnon *et al* passes through the material being analyzed that is located in the voids of a screen and not the screen material itself. To the contrary, the substrate of the present invention is comprised of a solid crystal which requires the infrared energy to pass through the substrate material and which, therefore, cannot substantially absorb that infrared energy since it would affect the analysis of the material by absorbing that infrared energy.

The use of a crystal that is formed by one or more of the steps comprising cleaving, fly cutting, chipping, milling, or scaling is simply not suggested by the presence of a screen that cannot be produced by any of the aforrelisted steps, thus illustrating the differences in the sample holding substrate of the present invention and the screen of Gagnon *et al.*

The differences between the use of a screen where the material is spread over the screen and the material to be analyzed is trapped within the voids and the use of a crystal surface where the sample material is spread evenly over the surface is profound. With a screen, if the

material is not sufficiently viscous, it will not adhere to the screen material and, therefore, certain materials simply cannot be analyzed with the use of a screen. This is an inherent limitation of a screen used to hold and position the sample material to be analyzed that is not an issue with the use of a crystal material.

There is also a detrimental effect even if the material is sufficiently viscous to be trapped in the screen and cover the voids since the thickness of that sample material will be uneven, that is, due to the effect of surface tension, the material closest to the screen material will be thicker than the material at the center of the void. Thus, with a screen, the thickness of the sample is not uniform across the void which has an effect on the analysis of that sample material. Note Paragraph [0009] of the present specifcation where the effect of liquid samples applied to a screen ""Furthermore, liquid samples applied to mesh form a meniscus at the inteface of the mesh lattice with the liquid which makes the sample thicker in some places than it is in others". Also, Dr. de Haseth noted, in the attached declaration, paragraph 2e, "Sample thicknesss and coverage are an issue with screens. If the sample has sufficient viscosity or surface tension, the sample will bridge the holes in the screen, but the thickness of the sample will be greater near the supports and thin in the center. If the viscosity is low, the film will break between the supports and voids will be present in the sample."

In addition, with a screen, the IR energy can be reflected off of the screen material; to what extent depends, of course, on the screen material, however, the IR energy can graze off of the screen material and affect the analysis of the sample material. As stated in the declaration of Dr. de Haseth, with a screen, there is a distortion of the spectrum by the sharp derivative bands that "result from grazing incidence radiation reflected off a polymer surface". Further, Dr de Haseth states that "the polymer screens add spectral distortons to the measurement, and all screens reduce the intensity of the raditaion".

As such, it is clear that the use of a screen having voids and a crystal where the sample material is spread over the surface of the crystal is totally different. In the former case, the sample material is trapped in voids and is uneven with the screen material not necessarily being a material that is transmissive to IR energy; the latter being a crystal where the sample material

can be spread evenly over the crystal surface and where the IR energy must pass through the crystal itself without substantially absorbing of that IR energy.

Taking the secondary reference of Eden *et al*, that disclosure relates to the processing of a semiconductor and does not seem to add any useful information to the Gagnon *et al* disclosure to overcome its inherent defficiencies. The Examiner has stated that Eden teaches cleaving of NaCl to achieve the desired size of crystal and he states "cleavage has the advantage of insuring separation along a precise well determined orientation of crystal". However, it is susbmited that Eden *et al* simply does not even teach that. Eden et al states, in its entirety, in reference to this subject:

" the NaCl substrates were prepared by cleaving large crystals in argon" Eden, Col. 10, line 54-55.

That statement is the entire contribution of Eden et al on the cleaving of NaCl. Thus, Eden et al does not teach cleaving to achieve transmission of IR radiation nor does it teach anything about the use of a cleaved NaCl crystal as a sample substrate for spectroscopy. Eden et al does not state that any form of energy, much less light energy, was passed through the cleaved NaCl crystal substrate. In fact, what Eden et al makes clear is that no form of light energy was passed through the NaCl substrate (which was used for the deposition thereon of a semiconductor film), when it states:

"The excimer laser bean passed <u>over</u> the substrate.....Care was taken to ensure that the excimer laser beam <u>did not</u> irradiate the substrate". Eden, Col 10, 56-62. Underlining added.

Thus, the only light energy mentioned in Eden et al did not even come into contact with the substrate. The Examiner's further comment about the advantage of cleavage insuring separation etc does not seem to be drawn from any teaching in the Eden et al patent.

As to Izumi, it has already been pointed out that the Izumi reference describes the processing of crystals such as KBr as both tedious and expensive (see column 2, lines 29-37 of

Izumi). Izumi adds nothing to the already lacking disclosure of Gagnon *et al* and, in fact, shows the long felt need in this art for an inexpensive sample card that eliminates the laborous steps of optical posishing a crystal to construct a sample card.

As such, Izumi teaches what was the known state of the art in respect of alkali halide crystals such as NaCl—namely that polishing alkali halide crystals such as KBr (NaCl is also an alkali halide crystal) to the extent that they become useful <u>is an expensive process involving polishing</u> of the crystal, and this perception among experts is the field is the very reason why the instant invention is not obvious and is not anticipated. Note the attached statement of Dr. de Haseth, paragraph 2a "Blanks, which were sold in unpolished form were unsuitable for spectroscopic analysis unless and until they were polished. It was also common for practicing spectroscopists to know how to polish alkali halide windows. This is a time consuming process and it is a skill that has almost been totally lost to the average spectroscopy lab." Also note the attached statement of Dr. Smolyarenko, paragraph 8 "In the field of optics, and optical materials, it is well known that optics have been precision processed for virtually every application in which they have been used as component of an optical product or optical device, including those optical devices used in spectroscopy for sample analysis". Dr. Smolyarenko concluded from that background that "Use in a spectroscopic sampling device of an optic formed merely by cleaving, fly cutting, chipping milling or scaling is therefor an unexpected result to those skilled in the art because cleaving, fly cutting, chipping, milling or scaling creates an optic which has not been processed as a blank and has not been precision optically polished yet the optic transmits sufficient light or energy for spectroscopic applications".

Izumi states that for a spectrophotometer in <u>either</u> the infrared or visible range, the beam splitters are 20% to 40% of the entire cost of spectrophotometer (excluding the computer) because the price of processing the optics is so expensive. Izumi Col. 2, lines 53-55.

The Examiner mischaracterizes Izumi as teaching that:

"Izumi teach [sic] in column 2 lines 24+ polishing KBr crystal is expensive and high polishing is needed for wavelengths <u>***other than the infrared range"***</u>

This distortion of what Izumi teaches implies that high polishing is not needed for the IR range. Izumi teaches no such thing. Izumi states that:

"For the intermediate infrared region, they [beam splitters] are generally made from very expensive KBr single crystal. The surfaces of the substrate and the correcting plate must be optically polished; however, the polishing cost is considerable because a KBr crystal is relatively soft and deliquescent" Izumi, Col 2, lines 31 -37.

There is no statement in Izumi about the cost of polishing KBr or any other crystal for the visible range because neither KBr nor any other crystal is used for beam splitters in the visible range. What is used in the visible range is fused silica which is often erroneously referred to as quartz. What Izumi says in respect of the visible range is:

"For the visible range, the substrate and correcting plate can be made from molten quartz; i.e. the material cost is relatively low; however, because of the short wavelength they must be polished higher in flatness than those for the infrared range." Izumi, Col 2, lines 44 – 48.

To begin with, "molten quartz" is not a crystal. Furthermore, it is quite clear that Izumi teaches that processing KBr for IR applications involves polishing, not just cleaving or cutting etc. As noted above, the implication of the Examiner's summary of Izumi is distorted and implies that it is somehow cheaper to process KBr for IR applications then for UV applications.

Therefore, the only logical conclusion to be drawn from Izumi is that the known state of the art for processing crystal material such as KBr is that it must be polished and that that polishing is expensive. There is nothing in Gagnon, the prior art referred to the in the present specifcation or Eden to the contrary. The only reference in the present specification to unpolished crystals is to crystal "blanks", and as to those, they are polished prior to use. See page 5 of the present specification. The spectra shown as Exhibits 5A demonstrate that an unpolished crystal blank has very little transmission as compared to water polished crystal blank, and, as shown in Figs. 8, 9 & 10, cleaved crystals have transmission comparable to water

polished crystal blanks. In fact, no one ever used a blank without water polishing it ---they were not used just in blank form. Both of the statements of Drs. De Haseth and Smolarenko point to the use of blanks that needed to be laborously polished and opined that the present crystals, made in accordance with claim 1, achieved an unexpected result over the polished blanks. See Dr. de Haseth, paragraph 6, "It is my opinion that it would be unexpected for one skilled in the art of spectroscopy to be able to consruct a finished product in the form of a sample holder for an infrared spectrophotometer or infrared filtometer in accordance with the steps and recited features of that claim and that familiariity with the previously discussed prior art relating to sampling substrates made of polymers, screens and crystal blanks (whether polished or unpolished) would not lead one skilled in the art to produce a usable substrate for a sample card in accordance with the recited feaures of that claim". See also paragaaph 9 of the Smolyarenko statement.

In the office action dated May 11, 2006, the Examiner cited In re Leshin (125 USPQ 416) for the proposition that selection of a material based upon its suitability of intended use would have been within the skill of the art in view of 35 USC 105. It is submitted that such conclusion overstates the holding in Leshin as applied to the present facts. The Court in Leshin was evaluating a <u>dependent</u> apparatus patent claim relating to a lipstick container wherein it was claimed that the container was made from plastic. The Court noted that "applicant ***concedes*** the plastics he uses were well known"; and noted further that "mere selection of known plastics to ***make a container of a type made by plastics prior to the invention***, the selection of plastics being on the basis of suitability, would be entirely obvious".

Clearly, the claimed invention <u>does not use</u> a crystal material of the type used to make a disposable sample card prior to the invention, and is therefore not the same as the plastic in Leshin which was <u>known</u> to make a container in the past. Furthermore, the means of processing the crystal substrates (cleaving, scaling, fly cutting, chipping or milling) claimed herein are means that had not heretofore been used to make optics that are suitable as spectroscopic sample substrates. Not only has the applicant not conceded obviousness as had the applicant in Leshin, but applicant has also submitted the Statements of two (2) prominent

experts who have stated that the use of cleaved, scaled, fly cut, chipped or milled crystals as spectroscopic sampling substrates is not obvious.

Obviousness was uncontested in Leshin and it is contested here by well founded expert opinion. In addition, Applicant submits that the Examiners interpretaton and applicaton of In re Leshin would seem to preclude patentability if applied to Gagnon (U.S. 5,764,355), wherein known screens of known materials and known micro-porous materials were selected as spectroscopic sample substrates or in Truett (U.S. 5,453,252 & 5,723,341) wherein known screens of known materials were selected as sample substrates. In any event, even if the Examiner's broad reading of In re Leshin were correct, In re Leshin does not extend to applicant's method claims.

THE STATEMENTS OF DR. DEHASETH AND DR. SMOLYARENKO

The statements of Dr. de Haseth and Dr. Smolyarenko have been resubmitted with this amendment in an amended form to specifically refer to the newly amended claims. The statements are submitted, not necessarily for their impact on the issue of commercial success, but to the unobviousness of the present invention as viewed by two renowned experts in their fields. As can be seen, both Doctors reviewed the present application, including the newly amended claims submitted herewith, and are of the opinion that constructing a finished product sample card as defined by the claims would be unexpected to them.

These statements are submitted to introduce the opinion of two experts in the applicable fields and who have reviewed the patent, including the claims and with their considerable experience are of the opinion that the sample card made in accordance with these claims to produce an optic that is usable for spectroscopic applications is unexpected.

COMMERCIAL SUCCESS

It is also submitted that the present invention enjoys commercial success based on the statement of the inventor, who is the Managing Director of International Crystals, the company marketing the sample cards covered by the claims in this application. Clearly the sales of the

sample cards of the present invention have progressively increased significantly each year since their introduction.

The Examiner need look no further than the very prior art cited in the present patent application to clearly see the need in the industry coupled with an effort by "others'. Take, for example, the patents of 3M Corporation, a renowned Fortune 500 company and who obviously recognized and attempted to solve the ongoing problem of the need in the field for a low cost sample card by coming up with polymer based cards in U.S. Patent 5,470,757 and U.S. Patent 5,764,355 (the "3M Patents"). The deficiencies of the 3M cards, however, has been explained by Dr. de Haseth in the attached statement, paragraph 2c, to the effect that the use of polymer cards creates absorbance peaks that interfere with the spectroscopic analysis of the sample itself. "Both substrates obscure important parts of the spectrum and to collect a spectrum without interference, spectra on both substrates have to be run and then merged together to obtain a good spectrum. This is by no means an easy task." That is a problem in the prior art that has now been solved by the use of the present sample cards where the crystal does not interfere with the analysis by creating interfering peaks.

Thus, it would seem clear that (1) sales have consistently increased, (2) there was a need in the industry and (3) others (3M) have been trying to solve the problem and fulfil the long felt need and still not come up with a successful solution to the problem.

Accordingly, it is submitted that the claims currently in the present application are in allowable form over the references of record and an allowance of the present application is respectfully solicited.

Respectfully submitted,

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